

ABSTRACT

Additional data security is achieved by incorporating cryptographic processing into a storage drive which is controllable by the drive user. By utilizing user supplied keys and related information, the user can control the cryptographic processing of
5 information and maintain its security and integrity. Further, this additional processing can be achieved without compromising the data storage capabilities of the storage drive. Enhanced security is further achieved through the use of a dual cryptographic process which includes both a two-way encryption/decryption process in conjunction with a one-way encryption process which is utilized to produce decryption check bytes during
10 storage operations and to check existing decryption check bytes following storage. Added convenience is provided to the user by providing encryption capabilities while also continuously providing decryption capabilities within the storage device itself.